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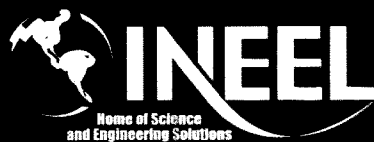
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INEEL CERCLA Disposal Facility – Master Table of Documents (Title I)



Idaho National Engineering and Environmental Laboratory

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ABSTRACT

This document is the umbrella document for the Title I design submittal for design/construction of the INEEL CERCLA Disposal Facility. This document gives brief background on the INEEL CERCLA Disposal Facility project and describes the organization of the Title I design submittal. It also includes a table of all documents that compose this submittal. The table provides a roadmap to the documents, including the contents of each volume, the order of the documents in each volume, and brief summary information describing each document.

CONTENTS

ABSTRACT	iii
ACRONYMS.....	vii
1. INTRODUCTION.....	1
1.1 Background.....	1
1.2 Organization of Design Submittal	2
1.3 Purpose of the Submittal.....	2
2. MASTER TABLE OF DOCUMENTS.....	3
3. REFERENCES.....	11
APPENDIX A—ICDF 30% Design Package—Document Review, Comment, Resolution List – EPA	A-1
APPENDIX B—ICDF 30% Design Package—Document Review, Comment, Resolution List – IDEQ	B-1

TABLES

1. Engineering drawings for the construction of the INEEL CERCLA Disposal Facility.....	10
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ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	Department of Energy
DOE-ID	U.S. Department of Energy Idaho Operations Office
ICDF	INEEL CERCLA Disposal Facility
IDW	investigation-derived waste
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
RCRA	Resource Conservation and Recovery Act
RD/RA	remedial design/remedial action
RI/BRA	remedial investigation/baseline risk assessment
ROD	Record of Decision
SSSTF	Staging, Storage, Sizing, and Treatment Facility
TSCA	Toxic Substances Control Act
WAG	waste area group

INEEL CERCLA Disposal Facility (ICDF) – Master Table of Documents (Title I)

1. INTRODUCTION

This introduction gives brief background information on the INEEL CERCLA Disposal Facility (ICDF) project and describes the organization of this design submittal.

1.1 Background

The Idaho National Engineering and Environmental Laboratory (INEEL), including the Idaho Nuclear Technology and Engineering Center (INTEC), was placed on the National Priorities List in November 1989. A *Federal Facility Agreement and Consent Order* (DOE-ID 1991) was negotiated among the Department of Energy (DOE), U. S. Environmental Protection Agency, and Idaho Department of Environmental Quality to direct Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanup activities at the INEEL.

A comprehensive study, or remedial investigation/baseline risk assessment (RI/BRA) (Rodriguez et al. 1997), was conducted to evaluate the nature and extent of soil and groundwater contamination at the INTEC. The results of the RI/BRA activities indicate that soil at certain release sites and groundwater contamination pose a potential risk above acceptable levels to human health and the environment. Therefore, the U.S. Department of Energy Idaho Operations Office (DOE-ID) authorized a remedial design/remedial action for the INTEC, resulting in the *Final Record of Decision, Operable Unit 3-13* (ROD) (DOE-ID 1999).

The ROD states that CERCLA-generated wastes from within the INEEL boundaries will be removed and disposed of in a new facility, the ICDF. The ICDF Complex has two major components: (1) the disposal (landfill) cells, which are referred to as the ICDF (the ICDF includes the evaporation ponds and leachate collection system), and (2) the Staging, Storage, Sizing, and Treatment Facility (SSSTF). The ICDF Complex will be within the boundaries of the INEEL Site. The ICDF Complex will be for treatment and disposal of low-level, hazardous, mixed, and some Toxic Substances Control Act (TSCA) wastes. The ICDF Complex combines the SSSTF and the ICDF and necessary subsystems and support facilities to provide a complete waste disposal system.

The ICDF landfill cell(s) has an authorized capacity of approximately 390,000 m³ (510,000 yd³). The evaporation pond will provide treatment/disposal capability for CERCLA-generated aqueous wastes. The ICDF landfill can have multiple cells and will be closed with a DOE Order 435.1/Resource Conservation and Recovery Act (RCRA) -compliant cover. Each disposal cell will be engineered to meet DOE Order 435.1, RCRA (40 CFR 264), Idaho Hazardous Waste Management Act (IDAPA 58.01.05), and TSCA polychlorinated biphenyl landfill design and construction requirements (40 CFR 761).

A conceptual design for the ICDF (DOE-ID 2000) was developed. The conceptual design consisted of the following physical items:

- A low-level, hazardous, mixed waste landfill that will provide waste disposal capacity for INEEL CERCLA-generated wastes

- An evaporation pond that will provide treatment/disposal capability for CERCLA-generated aqueous wastes from ICDF landfill leachate and storm water runoff and process effluent from the SSSTF
- A leachate collection system that will transfer leachate from the landfill to the evaporation pond and provide leak detection
- A landfill cap that will minimize infiltration and prevent access to wastes underneath
- Utilities, road modifications, and other site modifications necessary to support the project.

Following the conceptual design, a performance specification was written, which addresses the details required in order for a subcontractor to furnish

...all labor, supervision, materials, supplies, tools, equipment, facilities, technical and professional services, quality control, testing, and documentation required to perform design, planning, procurement, construction, system acceptance testing, and performance of all the operations necessary and required for successful and on-time design and construction of the ICDF at the U.S Department of Energy (DOE) INEEL in accordance with the design documents.... (INEEL 2000)

With the completion of the conceptual design and the performance specification, a request for proposal was issued and, on January 9, 2001, a subcontract was awarded to CH2M Hill to design and construct the ICDF. The major project milestones include

1. Submit Title II (90%) design for Agencies' review by December 18, 2001
2. Have the ICDF operational by May 2003.

1.2 Organization of Design Submittal

This submittal for ICDF design is made in one 5-volume package. This package, submitted under *INEEL CERCLA Disposal Facility – Master Table of Documents (Title I)*, includes the Title I design information for the ICDF. Specific documents included are annotated outlines of the remedial design/remedial action work plan, the construction quality assurance plan, and the operations and maintenance plan; specifications; engineering design files; waste acceptance criteria; and facility drawings. The individual documents in this package will continue to evolve through the completion of Title II, as appropriate.

The document under which this Title I (30%) design is submitted includes a table listing all documents provided as the package (Section 2). Summary information in the table briefly discusses each document. All volumes in the package are labeled with the umbrella document number ("DOE/ID-10847"). The volume number is also shown on the cover. Section 3 of this umbrella document lists references. Appendices A and B are, respectively, EPA and IDEQ comments/resolutions.

1.3 Purpose of the Submittal

The purpose of this submittal is to provide information on the design of the ICDF. The Title I design submittal is a required FFA/CO secondary document for this project. The Title I design

information supplied here will be the basis for the Title II submittal. The information was first provided as a Draft Title I to give the Agencies the opportunity to review and comment. The Title I submittal addresses these comments to complete the 30% design (see Appendices A and B).

2. MASTER TABLE OF DOCUMENTS

This section presents summary information on each document included in the ICDF Title I design. This summary information is presented with the same organization as the full submittal, that is, the order of the volumes and documents within each volume is identical to the full submittal.

Volume 1

INEEL CERCLA Disposal Facility – Master Table of Documents (Title I), DOE/ID-10847

This document is the umbrella document for the Title I design submittal for design/construction of the ICDF. This document gives brief background on the ICDF project and describes the organization of the Title I design submittal. It also includes a table of all documents that compose this submittal. The table provides a roadmap to the documents, including the contents of each volume, the order of the documents in each volume, and brief summary information describing each document.

The Title I design submittal is a required FFA/CO secondary document. The purpose of the Draft Title I design submittal was to provide the Agencies an opportunity to review and comment upon the ICDF design. This Title I submittal incorporates those comments (see Appendices A and B).

The major project milestones include

1. Submit Title II (90%) design for Agencies' review by December 18, 2001
2. Have the ICDF operational by May 2003.

INEEL CERCLA Disposal Facility Remedial Design/Remedial Action (RD/RA) Work Plan/Title II Design - Annotated Outline (Title I), DOE-ID-10848

The Remedial Design/Remedial Action Work Plan provides the framework for defining the remedial design requirements, preparing the design documentation, and defining and implementing the construction phase for the ICDF landfill, evaporation pond, and associated components at Operable Unit (OU) 3-13. This facility will be an engineered facility meeting the substantive Resource Conservation and Recovery Act, Subtitle C, and Toxic Substances Control Act design and construction requirements.

In addition to the work plan, other supporting documents include the health and safety plan, the operations and maintenance plan, the waste management plan, the long-term monitoring plan, and the monitoring system and installation plan.

INEEL CERCLA Disposal Facility Construction Quality Assurance Plan for the INEEL CERCLA Disposal Facility - Annotated Outline (Title I), DOE-ID-10851

This document provides an annotated outline for the comprehensive Construction Quality Assurance Plan for the INEEL CERCLA Disposal Facility. The Construction Quality Assurance Plan describes the responsibilities and testing requirements for each component of the ICDF, including, but not limited to, the landfill and evaporation pond liner system, leachate collection system, and evaporation pond.

INEEL CERCLA Disposal Facility Complex Landfill and Evaporation Pond Operation and Maintenance (O&M) Plan - Annotated Outline (Title I), DOE-ID-10852

This document presents an outline for the Operations and Maintenance Plan for the ICDF. The topics that will be covered are listed and the plan organization is presented. The outline is annotated to convey the level of detail that will be presented in each section of the Operations and Maintenance Plan.

Technical Specifications for the INEEL CERCLA Disposal Facility (Title I), SPC-1476

The technical specifications contain six divisions and are as follows:

1. Site Construction
2. Concrete
3. Equipment
4. Special Construction
5. Mechanical
6. Electrical

These specifications address the items for the ICDF outside those required for the excavation of the landfill and construction of the test pad. They complete the Title I (30%) complete design package.

Volume 2

INEEL CERCLA Disposal Facility Design Inventory (Title I), EDF-ER-264

This Engineering Design File identifies a preliminary waste inventory that will be used to assist in the design basis of the ICDF landfill. According to the ROD, the ICDF landfill has an authorized capacity of 510,000 yd³ (389,000 m³). Approximately 413,000 yd³ (315,700 m³) of INEEL CERCLA waste, about 80% of the authorized capacity, have been identified for disposal in the ICDF during the first 10 years of operation. In addition to remediation waste, an additional 78 yd³ (60 m³) of investigation-derived waste (IDW) will be generated as part of the OU 3-14 tank farm investigation and disposed in the ICDF landfill. Only low-level, mixed low-level, hazardous, and limited quantities of TSCA-regulated waste will be treated and/or disposed in the ICDF. The waste, which consists predominately of contaminated soil with some debris, will be generated from INEEL CERCLA response actions including those actions associated with deactivation, decontamination, and dismantlement and the generation of IDW.

In addition to the volume of the waste, another major factor in the design of the ICDF landfill is the inventory of organic, inorganic, and radionuclide contaminants (type, mass, and concentration). The design inventory is intended to provide a conservative estimate of the waste inventory that is expected to be disposed in the landfill during the first 10 years of operation. To the extent analytical data were available on the contaminant concentration of the waste, those data were used to help determine the waste inventory. When analytical data were not available, contaminant concentrations for each release site were estimated based on process knowledge, releases from similar sites, scaling factors, or average contaminant concentrations from similar waste. Since much of the design inventory is conservatively estimated, it should not be used to approximate actual site conditions. It does, however, provide a conservative approximation of the wastes to be disposed in the ICDF landfill.

Hydrologic Modeling of Final Cover (Title I), EDF-ER-279

The SoilCover™ model was used to evaluate long-term infiltration rates through the proposed landfill cover section for the ICDF. Hydrologic modeling was conducted to simulate average and extreme climatic scenarios that could result in infiltration through the cover. Climatic parameters used during hydrologic modeling were based on site data from 10 years representing average conditions (1967 to 1976). In addition, 4 years with precipitation greater than the 90th percentile of recorded annual precipitation (1957, 1963, 1964, and 1995) were simulated consecutively to represent an extreme climatic scenario. The modeling effort evaluated the performance of the cover by determining infiltration through the upper soil component of the cover system. This cover soil component acts as the storage layer within the cover and provides the mechanism for storing and releasing atmospheric precipitation. The performance of the soil cover was evaluated based on the water flux at a node located at the interface of the soil component and the underlying sand.

Leachate/Contaminant Reduction Time Study (Title I), EDF-ER-274

Concentrations of selected design inventory constituents in ICDF landfill leachate were simulated over the 15-year operations period. The purpose of the study was to examine the change in leachate concentration over time, as it is directed toward the evaporation pond. The results may be applied toward performance assessment modeling in the future. Two groups of screened design inventory constituents were applied to the leachate/contaminant reduction time study. One group was screened on the basis of partition coefficients and the other on the basis of concentration in the design inventory. The latter group was entered into a geochemical model to simulate solubility constraints on the resulting leachate concentrations. Concentrations of each group were entered into a spreadsheet program that simulated partitioning to the solid phase via adsorption, radioactive decay, and leachate removal from the landfill. The leachate will be a brackish to saline water dominated by sodium and sulfate and buffered by carbonates to a pH of around 8.2. The results indicate less than 10% of the inventory masses of the most mobile constituents (iodine and technetium) are expected to be removed from the landfill during the operation period.

Fate and Transport Modeling Results and Summary Report (Title I), EDF-ER-275

Fate and transport modeling was conducted to evaluate potential long-term concentrations in the Snake River Plain Aquifer that could result from contaminant transport from the ICDF. Fate and transport simulations were conducted in two phases. The first phase consisted of a contaminant screening analysis to identify parameters that required further assessment. In the second phase, three relatively mobile contaminants and a range of infiltration rates were used to evaluate fate and transport through the vadose zone to a hypothetical monitoring well located 20 m downgradient from the ICDF Complex in the Snake River Plain Aquifer. This report provides results from the contaminant screening evaluation and findings from fate and transport simulations.

Permeable Reactive Barrier Decision Analysis (Title I), EDF-ER-273

This Permeable Reactive Barrier Decision Analysis Study is based on the results of the following documents: the Leachate Contaminant Reduction Time Study, the Hydrologic Modeling of the Final Cover, the Liner and Final Cover Long Term Performance Evaluation, and the Fate and Transport Modeling Results and Summary Report.

The studies performed in support of the ICDF Title I design indicate that a permeable reactive barrier is not effective in protecting human health and the environment from contaminants leaching from the ICDF. At most, a permeable reactive barrier would minimally slow migration of mobile

contaminants, but would not immobilize them. Proposed permeable reactive barrier materials that have the capability of reducing mobility of I-129 are peat and activated carbon. The life expectancy of these reactive materials is not expected to meet the 1,000-year design life of the facility because of their capacity to react with a large variety of chemicals in addition to the contaminants of concern.

An infiltration-reducing cover that takes advantage of the local climatic conditions can be designed and installed with appropriate layers to protect the soil cover portion of the cover from erosion for 1,000 years or longer. As a component of the ICDF design, the low-infiltration cover will be more reliable than an experimental permeable reactive barrier.

This Permeable Reactive Barrier Decision Analysis concludes that the use of an infiltration-reducing cover design will be more effective than the use of a permeable reactive barrier in protection of the Snake River Plain Aquifer from migration of landfill contaminants for the design life of the ICDF landfill. The use of a permeable reactive barrier will not increase protection of human health or the environment.

Monitoring System and Installation Plan for Operable Unit 3-13, Group 5, Snake River Plain Aquifer, DOE/ID-10782

[NOTE: In response to Agency comments on the Draft Title I design, a standalone ICDF groundwater monitoring plan will be prepared and submitted with the Title II design. Because a separate plan will be prepared to address ICDF monitoring requirements, the proposed changes to the *Monitoring System and Installation Plan for Operable Unit 3-13, Group 5, Snake River Plain Aquifer*, DOE/ID-10782, will not be implemented and this document has been removed from this Title I design submittal.]

Long-Term Monitoring Plan for Operable Unit 3-13, Group 5, Snake River Plain Aquifer, DOE/ID-10783

[NOTE: In response to Agency comments on the Draft Title I design, a standalone ICDF groundwater monitoring plan will be prepared and submitted with the Title II design. Because a separate plan will be prepared to address ICDF monitoring requirements, the proposed changes to the *Long-Term Monitoring Plan for Operable Unit 3-13, Group 5, Snake River Plain Aquifer*, DOE/ID-10783, will not be implemented and this document has been removed from this Title I design submittal.]

Volume 3

Evaluation of Geotechnical Investigations Required to Complete Design and Construction (Title I), EDF-ER-276

As part of the work to prepare the drawings, specifications, and calculations/studies for the ICDF and evaporation pond Draft Title I design, an evaluation of the existing geotechnical information was performed. In general, the existing geotechnical information is thorough and complete. The existing information provides a strong base for the preparation of the Draft Title I design and completion of the Remedial Design/Remedial Action (RD/RA) Work Plan/Title II Design package. However, in development of the design studies and calculations for slope stability assessment, fate and transport modeling and final cover hydraulic modeling and life cycle evaluation, specific data gaps requiring additional geotechnical testing, investigation, or survey were identified.

This study includes a spreadsheet that provides a summary of additional geotechnical investigations and calculations (including laboratory testing and survey data) required to complete the RD/RA Work Plan/Title II Design package. The summary spreadsheet provides the associated vendor

item data number and justification for the additional investigation. Where applicable, the type and quantity of laboratory tests required are identified. The majority of the additional geotechnical investigations will be accomplished during construction of ICDF and should not affect the project schedule.

Seismic Evaluation of Landfill and Evaporation Pond (Title I), EDF-ER-282

This report discusses the methodology that will be used to evaluate the stability of the ICDF landfill and evaporation pond under seismic loading. This evaluation will be based on the information contained in the site-specific seismic design standards established for the INEEL Site.

For this 30% submittal report, the present requirements for seismic evaluation of landfill facilities are discussed. This discussion includes the site-specific design response spectra that were developed for estimation of peak-ground acceleration levels at the site. These design spectra are then compared to the preliminary analysis results that were obtained as part of this 30% submittal.

Slope Stability Assessments (Title I), EDF-ER-268

This report documents the slope stability evaluations that were performed to aid in the design of the liner system for the ICDF landfill and evaporation pond. These stability evaluations included veneer stability, global stability, and stability after excavation.

Veneer stability involves evaluation of the potential for sliding of the drainage layer and operations layer on the liner system before refuse is placed. Global stability involves evaluation of the potential for sliding during operation of the landfill, for stability of the final landfill configuration with the cover in place, and for global failure of the evaporation ponds. Stability after excavation involves evaluation of stability, immediately after excavation of the landfill and before placement of the lining system.

Results of stability analyses were used to assess the adequacy of the design configuration for the landfill and evaporation pond. Guidance for waste placement operations and practical construction and maintenance considerations are also included in this report, based on these evaluations.

Subsurface Consolidation Calculation (Title I), EDF-ER-266

This calculation determines the amount of settlement that is expected to occur in the subsurface soils beneath the landfill. Soil properties from site investigations are input into spreadsheet solutions using accepted settlement analysis methods. The calculated settlements will be used to determine the deformation in the liner system and resulting strains to determine the integrity of the landfill liner system.

Landfill Compaction/Subsidence Study (Title I), EDF-ER-267

This calculation predicts the amount of subsidence in the cover of the ICDF landfill. Settlement is caused by consolidation of the subsurface soils underlying the landfill, waste material settlement, and settlement in the cover itself. This calculation estimates subsidence in the cover and provides recommendations for the final slope of the cover. It also provides recommendations for compacting waste materials to reduce settlement.

Waste-Soil Design Ratio Calculations (Title I), EDF-ER-277

This calculation analyzes different types of potential debris that are anticipated to be disposed of at the ICDF landfill. The calculation determines the amount of soil that will be required to provide a stable fill that will protect the permanent cover system for the landfill.

Waste Placement Plan (Title I), EDF-ER-286

This Waste Placement Plan for the ICDF is a performance specification that provides direction for waste placement procedures and operational requirements associated with the facility. The OU 3-13 ROD, which outlines the remedial action connected with construction of the ICDF, stipulates technical and functional requirements listed in the performance specification.

Liner and Final Cover Long-Term Performance Evaluation and Final Cover Life Cycle Expectation (Title I), EDF-ER-281

This study provides the basis for engineering analyses for designing the ICDF landfill liner and cover systems. For each design analysis, the associated applicable or relevant and appropriate requirements and performance design criteria are defined, and the appropriate calculation completed. This study also includes an explanation of how the design analyses demonstrate compliance with the required liner and cover service life. In addition, an explanation is provided to demonstrate qualitatively that the ICDF landfill design will meet the required design life of 1,000 years.

Leachate Generation Study (Title I), EDF-ER-269

A widely used computer model developed by the U.S. Army Corps of Engineers, Hydraulic Evaluation of Landfill Performance, was used to determine leachate generation from the ICDF landfill. Modeling was based on performance specification design requirements and applicable climatological (precipitation and evaporation) data. Leachate generation was determined for two operation scenarios: cell 1 open for active waste placement, and cell 2 open for active waste placement with cell 1 closed.

Landfill Leachate Collection System Design Analysis (Title I), EDF-ER-280

The leachate collection system was designed to meet applicable or relevant and appropriate requirements as specified in the Performance Criteria for the ICDF. The design of the ICDF features a disposal cell and two evaporation ponds for treatment of leachate and additional process water. The operation of the landfill is phased with cell 1 operating initially followed by the future addition of cell 2. The leachate collection system was designed to be expandable to incorporate cell 2. The system was designed to accommodate maintenance and sampling activities through two crest pad buildings, one at the location of the landfill cell and one at the location of the evaporation ponds.

The leachate collection system design analysis includes the following: maximum flow rates through the leachate media and pipes, sump discharges and recirculation piping, drainage layers, sump pumps, and discharge piping to the evaporation ponds.

Liner/Leachate Compatibility Study (Title I), EDF-ER-278

This study evaluates the compatibility of the liner materials with the leachate generated by the waste disposed of in the ICDF. The liner system is composed of both natural and synthetic materials including compacted clay, geosynthetic clay liner, high-density polyethylene, and polypropylene products. This study will determine if these materials are compatible with the leachate, based on experience at similar landfills and published literature.

Evaporation Pond Sizing with Water Balance and Make-up Water Calculations (Title I), EDF-ER-271

Evaporation ponds at the ICDF are sized to meet performance specifications such that the pond is designed for maximum expected inflow while minimizing both pond surface area and make-up water. Further, pond sediments must remain submersed at all times. Anticipated make-up water needs were calculated for a sustained dry period.

Conservative inputs were used in the calculations to evaluate pond performance under extreme inflow conditions.

Volume 4

Waste Acceptance Criteria for ICDF Landfill (Title I), DOE/ID-10865

The ICDF landfill will accept CERCLA wastes generated within the WAG 3 area of contamination and other INEEL WAG area of contamination boundaries. Hazardous, mixed, low-level, and TSCA (polychlorinated biphenyls) wastes will be accepted for disposal at the ICDF. The purpose of this waste acceptance criteria document is to provide the basis for the quantities of radioactive and nonradioactive wastes allowable in waste designated for disposal in the ICDF landfill.

Compliance with the requirements of this ICDF landfill waste acceptance criteria will ensure protection of human health and the environment, including the Snake River Plain Aquifer. Wastes placed in the ICDF landfill must not cause groundwater in the Snake River Plain Aquifer to exceed either maximum contaminant levels or 10^{-4} cumulative risk levels.

Waste Acceptance Criteria for ICDF Evaporation Pond (Title I), DOE/ID-10866

The OU 3-13 ROD requires CERCLA remediation wastes generated within the INTEC boundaries to be removed and disposed of on-Site in the ICDF. The major components of the ICDF are the disposal cells, an evaporation pond, and the SSSTF.

The evaporation pond is designated as a Corrective Action Management Unit in accordance with the substantive requirements of IDAPA 58.01.05.008 (40 CFR 264.552 and 40 CFR 264 Subpart K and CC) for the purpose of managing ICDF landfill leachate and other aqueous wastes generated as a result of operating the ICDF Complex (OU 3-13 ROD). The evaporation pond will accept ICDF leachate and potentially contaminated aqueous waste streams generated from INTEC and other INEEL CERCLA actions.

The purpose of this waste acceptance criteria is to provide the basis for the quantities of radioactive and nonradioactive contaminants of concern that may be present in the aqueous wastes disposed of in the ICDF evaporation pond and the basis for its operation. The aqueous wastes will include leachate from the ICDF landfill, purge and development water from monitoring well drilling operations, and secondary aqueous wastes generated from waste processing and decontamination activities in the SSSTF and other INEEL CERCLA projects.

Compliance with the requirements of the evaporation pond waste acceptance criteria will ensure protection of human health and the environment. This document defines responsibilities, identifies the waste acceptance process, and provides the regulatory citations used in the development of the evaporation pond aqueous waste acceptance criteria, and the acceptable numerical concentrations for the waste constituents.

Volume 5

INEEL CERCLA Disposal Facility – Drawings (Title I)

Volume 5 contains the 19 engineering drawings for the construction of the ICDF. The drawings are listed below by title and drawing number.

Table 1. Engineering drawings for the construction of the ICDF.

Title	Drawing Number
Title Sheet, Drawing Index, and Site Location Maps	G-201
Abbreviations, Legend, and General Notes	G-202
Cell 1 Final Grading Plan	C-203
Evaporation Pond Area Final Grading Plan	C-205
Cell 1 Geosynthethics Liner Systems Plan	H-201
Evaporation Pond Geosynthethics Liner Systems Plan	H-202
Cell 1 Liner Systems Sections and Details	H-203
Cell 1 Sump Liner Systems Sections and Details	H-204
Evaporation Pond Liner Systems Sections and Details	H-205
Leachate System P&ID	P-201
Leachate Piping Plan	L-201
Crest Pad Building Plan and Elevations	A/S-201
Truck Loading Plan, Sections and Details	A/S-203
Electrical Schedules and One-Line Diagrams	E-202
Cell 2 Excavation Plan	C-301
Cell 2 Final Grading Plan	C-302
Cell 2 Sections and Details	C-303
Final Cover Plan	C-304
Final Cover Sections and Details	C-305

3. REFERENCES

- 40 CFR 264, July 2000, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 264.19, July 2000, "Construction quality assurance program," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 264.552, June 1999, "Corrective action management units," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 264 Subpart K, July 1982, "Surface Impoundments," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 264 Subpart CC, December 1994, "Air Emission Standards for Tanks, Surface Impoundments, and Containers," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 761, July 2000, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions," *Code of Federal Regulations*, Office of the Federal Register.
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- DOE-ID, October 1999, *Final Record of Decision, Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13, Idaho National Engineering and Environmental Laboratory, Idaho Falls, Idaho*, DOE/ID-10660, Rev. 0, U.S. Department of Energy Idaho Operations Office, Idaho Falls, Idaho.
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